

Options for Closing the Gap on Forestry Management Measures

January 2015

(Edits from Richard Whitman and Dick Pedersen)

(Additional couple of comments from W. Stelle)

(Comments Added by C. Psyk on 1/22/2015)

01/21/2015

Background/Context

EPA and NOAA believe that Oregon's coastal zone management measures for forestry need to be strengthened in order to assure that forest lands are being managed to achieve clean water and healthy watershed conditions. This paper describes how Oregon may strengthen its forest management measures in ways that will achieve a healthy resilient coastal environment where forest management measures satisfy the Congressional objectives of the Coastal Zone Amendment Reauthorization Act (CZARA).

General CZARA Guidelines for Approval

There are two pathways for states to achieve an approvable program: 1) a *regulatory program*; and/or 2) a *voluntary approach*. A voluntary approach requires that the State provide the following:

- a description of the voluntary programs, including the methods for tracking and evaluating those programs Oregon will use to encourage implementation of the management measures;
- a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary; and
- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary, notwithstanding the statutory "BMP safe harbor" provision in the Forest Practices Act.

Options for Oregon to Strengthen its Forestry Management Measures to Satisfy the CZARA Requirements

- **Riparian Protection**
 - **Small and Medium Fish-Bearing Streams:** State currently pursuing regulatory program:

- Current Deficiencies/Shortfall: Inadequate riparian protections for small and medium fish-bearing streams. Available data, including Ripstream Study data and analysis, shows that current Oregon Forest Practices Act measures do not ensure that forest operations meet water quality standards for protecting cold water (PCW) standard in small and medium fish-bearing streams in areas historically occupied by salmon, steelhead and bull trout habitat.
- State Actions Needed: 1) **Complete riparian rulemaking by July 1, 2016;** 2) Rule should be designed to achieve the PCW standard in all current and historical salmon, steelhead and bull trout habitat;; and 3) The rule should also include a means to monitor whether it is succeeding in assuring that forest operations comply with the PCW standard.
- **Non-Fish-Bearing Streams: State may pursue regulatory and/or voluntary approaches:**
 - Current Deficiencies/Shortfall: Current Oregon Forest Practices Act measures may not ensure that forest operations comply with the PCW standard. The state's measures should ensure that forest operations meet the State water quality standards for protecting cold water criterion, including in the Coast Range covered under CZARA.
 - Examples of State Actions Needed: 1) **By July 1, 2016,** identify and adopt measures to ensure that the PCW standard is met, whether regulatory or voluntary (or a combination of both). 2) **By July 1, 2016,** identify and provide to NOAA and EPA the monitoring program associated with any voluntary measures, and the general authorities ODF and DEQ will rely on if voluntary measures are found to be inadequate to achieve the PCW standard on an ongoing basis. 3) **By July 1, 2016, Oregon must** demonstrate how it is showing compliance with elements of a voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs). (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).
- **Roads: Regulatory and/or voluntary approaches would need to address the following items:**
 - Current Deficiencies/Shortfall:
 - *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with “legacy” roads, (i.e., roads that do not meet current State requirements with respect to siting, construction, maintenance, and road drainage) or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.

- *Voluntary* – EPA and NOAA believe the current ODF voluntary program does not adequately address legacy roads, nor has the state satisfied all elements needed for a voluntary program (see above). If it cannot be determined that the current voluntary program addresses legacy roads, the list below provides options for addressing this.
- Examples of State Actions Needed:
 - *Regulatory* – **By December 31, 2016**, establish regulations and or policies that address the above deficiencies. Or,
 - *Voluntary* – **By July 1, 2016**, 1) establish a road survey or inventory program that considers active, inactive, and legacy roads that have the potential to deliver sediment to streams (i.e., similar to WA's and ID's); 2) develop a ranking system to establish priorities for road repair or decommissioning; 3) develop a timeline for addressing priority road issues including retiring or restoring forest roads that impair water quality; and 4) develop a reporting and tracking component to assess progress for remediating identified forest road problems.

For an effective voluntary approach, all are needed as a package. The state must also meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs
(<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).
- **Landslides: Regulatory and/or voluntary approach would need to address the following items: [To be clarified by EPA/NMFS re relation to LWD and sedimentation concerns]**
 - Current Deficiencies/Shortfall:
 - *Regulatory* - Oregon's current rules protect for public safety against shallow, rapidly moving landslides. Oregon does not have additional management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards and designated uses are protected. While some level of landslide activity may not be preventable, and some may even be desirable to provide large woody debris to enhance habitat complexity and value, there needs to be a balanced program that prevents landslide activity that excessively silts streams impairing water quality and blocking or impairing salmon habitat.
 - *Voluntary* – The voluntary measure identified by the State gives landowners credit for leaving standing live trees in landslide prone slopes as an eventual source of large wood for fish-bearing streams. The State

hasn't shown how it monitors and tracks the implementation and effectiveness of this measure.

- Examples of State Actions Needed:

- *Regulatory* – **By [date certain]**, adopt similar harvest and road construction restrictions for all high-risk landslide prone areas with the potential to impact water quality and designated uses, not just those where landslides pose risks to life and property.
- *Voluntary* – **By [date certain]**, complete the following actions. 1) Establish program that includes a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. Widely available maps of high-risk landslide areas could improve water quality by informing foresters during harvest planning. 3) Adopt BMPs that include employing no-harvest restrictions around high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized.

For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

- **Spray Buffers for Aerial Application of Herbicides on Non-Fish-Bearing Streams: regulatory and/or voluntary approaches that could be established include the following items: [To be clarified by NMFS re why FIFRA isn't already adequate].**

- Current Deficiencies/Shortfall:

- *Regulatory* - Oregon does not have a spray buffer to protect non-fish-bearing streams when herbicides are aerially applied.
- *Voluntary* – There are no voluntary spray buffers nor is there monitoring and tracking on non-fish-bearing streams.

- Examples of State Actions Needed: The State should establish a process to track, monitor and verify that FIFRA requirements are being followed when herbicides are applied to small non-fish-bearing streams where currently there are no vegetation requirements in the Coast Range to protect against overspray and drift. Riparian buffer protections for non-fish-bearing streams may suffice as a protective herbicide spray buffer if riparian buffer protections extend the length of the non-fish bearing stream where spraying occurs; or

- *Regulatory* – **By [date certain]**, adopt rules for aerial herbicide spray buffers for small, non-fish-bearing streams; OR

- *Voluntary* – **By [date certain]**, 1) develop guidelines to retain vegetation around small non-fish-bearing streams; 2) monitor and track that voluntary guidelines are followed 3) identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented; and 4) revise ODF Notification of Operation form to explicitly include that aerial applicators will adhere to FIFRA labels, especially for herbicides that are prohibited from use in/above waterbodies, for all stream types, including non-fish-bearing streams.

For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

Options for Closing the Gap on Forestry Management Measures

January 2015

(Edits from Richard Whitman and Dick Pedersen)

(Additional couple of comments from W. Stelle)

(Comments Added by C. Psyk on 1/22/2015)

01/21/2015

Background/Context

~~EPA and NOAA believe that Oregon's coastal zone Additional progress is needed in Oregon on the additional management measures for forestry need to be strengthened in order to assure that forest lands are being managed to achieve clean water and healthy watershed conditions that are necessary to achieve and maintain water quality standards and designated uses in coastal Oregon waters. This paper e following describes how Oregon may strengthen its forest management measures in ways that will achieve a healthy resilient coastal environment where forest management measures choose to proceed to adopt additional protective forestry measures to satisfy the Congressional objectives of the Coastal Zone Amendment Reauthorization Act (CZARA) additional management measures for forestry.~~

Comment [PC1]: The purpose of this document was to summarize the options that the State could pursue to address the gaps in forestry management measures. CZARA requires that the gaps be addressed through either a regulatory program or voluntary program. The specific substance options in this summary discussion document are "options" not have to dos. The only have to do is to address the gaps and to do so either through a regulatory or voluntary program.

Comment [d2]: Maintaining water quality standards is fairly straight forward i.e. meet certain numeric criteria or, in the case of temperature, maintain cold water. Maintaining designated uses is very much less defined and hasn't to my knowledge been clearly articulated. What is the outcome? What is the metric, etc. This becomes a problem when we start defining voluntary measures, is it a buffer or is it a methodology that protects and provides for habitat.

General CZARA Guidelines for Approval

There are two pathways for states to achieve an approvable program: 1) a regulatory program; and/or ~~OR~~ 2) a voluntary approach. A voluntary approach requires that the State provide the following:

- a description of the voluntary programs, including the methods for tracking and evaluating those programs Oregon will use to encourage implementation of the management measures;
- a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary; and
- a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing authorities where necessary, notwithstanding the statutory "BMP safe harbor" provision in the Forest Practices Act.

Options for Oregon to Strengthen its Forestry Management Measures to Satisfy the CZARA Requirements Additional Management Measures for Forestry

Comment [PC3]: The "Additional Management Measures for Forestry" are a condition of CZARA.

- **Riparian Protection Buffers**

- **Small and Medium Fish-Bearing Streams:** State currently pursuing regulatory program:
 - Current Deficiencies/Shortfall: Inadequate riparian protections for small and medium fish-bearing streams. Available data, including Ripstream Study data and analysis, shows that current Oregon Forest Practices Act measures do not ensure that forest operations meet the State water quality standards for protecting cold water (PCW) standard in small and medium fish-bearing streams in areas historically occupied by salmon, steelhead and bull trout habitat.
 - Examples of State Actions Needed: 1) **Complete riparian rulemaking by July 1, 2016** [date certain]; 2) Rule should be designed to achieve the PCW standard in all current and historical salmon, steelhead and bull trout habitat, cover small and medium fish-bearing streams; and 3) The rule should also include a means to monitor whether it is succeeding in assuring that forest operations comply with the PCW standard. Rule should provide protective no-cut buffers.
- **Non-Fish-Bearing Streams:** State may pursue regulatory and/or voluntary approaches is not currently pursuing a regulatory program; voluntary approach would need to address the following items:
 - Current Deficiencies/Shortfall: Current Oregon Forest Practices Act measures may not ensure that forest operations comply with the PCW standard. No riparian protections for small, non-fish-bearing streams in the Coast Range. The state's measures should ensure that forest operations meet the State water quality standards for protecting cold water criterion, including in the Coast Range covered under CZARA.
 - Examples of State Actions Needed: 1) **By July 1, 2016** [date certain], identify and adopt measures to ensure that the PCW standard is met, whether regulatory or voluntary (or a combination of both) adequate no-cut buffer with a wider riparian management zone equivalent to WA's or CA's program. 2) **By July 1, 2016** [date certain], identify and provide to NOAA and EPA the monitoring program associated with any voluntary measures, and the general authorities ODF and DEQ will rely on if voluntary measures are found to be inadequate to achieve the PCW standard on an ongoing basis to enforce changes when voluntary measures are not implemented. 3) **By July 1, 2016** [date certain], Oregon must demonstrate how it is showing compliance with elements of a needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs). (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>).

- **Roads:** Regulatory and/or voluntary approaches would need to address the following items:

Comment [PC4]: For purposes of CZARA, we look broadly at all available data, not just Ripstream.

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Comment [WRM*G7]: Be careful, this is factually incorrect. 50' buffers for medium non-fish-bearing streams, and 20' buffers for small non-fish streams. OAR 629-635-0300 and 629-640-200.

Comment [PC8]: We reviewed the OAR rule cited above and believe our statement is correct. OAR 629-635-0200(6) provides that "Operators shall retain all understory vegetation and non-merchantable conifer trees (conifer trees less than six inches DBH) within 10 feet of the high water level on each side of small perennial Type N streams indicated in Table 5". Table 5 – "Vegetation Retention for Specified Small Type N Streams (OAR 629-640-0200(6))"—lists the vegetation requirements for specific geographical regions in the State. Figure 1 "Geographic Regions" (OAR 629-635-0220) is a map of the State divided into seven defined regions and one undefined region. The region defined as the "Coast Range" includes most of the area covered by CZARA. Table 5 provides that "no vegetation" is required for the Coast Range or the Western Cascades regions.

... [1]

Comment [DJM9]:

Comment [d10]: How is compliance determined? Is it buffers of a certain distance everywhere all the time or an approach that achieves the outcome of cold water and habitat?

Comment [PC11]: Compliance will depend on what sort of guidelines or requirements the State establishes and what level of flexibility it builds into those guidelines for site specific reasons. What we expect here is for the state to provide a description of the elements of the voluntary ... [2]

○ Current Deficiencies/Shortfall:

- *Regulatory* - Recent rule changes and new policies do not sufficiently address water quality impairments associated with “legacy” roads, (i.e., roads that do not meet current State requirements with respect to siting, construction, maintenance, and road drainage) or impairments associated with the portion of the existing network where construction or reconstruction is not proposed.
- *Voluntary* – EPA and NOAA believe the current ODF voluntary program does not adequately address legacy roads, nor has the state satisfied all elements needed for a voluntary program (see above). If it cannot be determined that the current voluntary program addresses legacy roads, the list below provides options for addressing this.

Comment [d12]: Or “it cannot be determined if the voluntary program adequately addresses legacy roads”

○ Examples of State Actions Needed:

- *Regulatory* – By December 31, 2016~~[date certain]~~, establish regulations and or policies that address the above deficiencies. Or,
- *Voluntary* – By July 1, 2016~~[date certain]~~, 1) establish a road survey or inventory program that considers active, inactive, and legacy roads that have the potential to deliver sediment to streams (i.e., similar to WA’s and ID’s); 2) develop a ranking system to establish priorities for road repair or decommissioning; 3) develop a timeline for addressing priority road issues including retiring or restoring forest roads that impair water quality; and 4) develop a reporting and tracking component to assess progress for remediating identified forest road problems.

For an effective voluntary approach, all are needed as a package. The state must also meet other elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA’s 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

• **Landslides: Regulatory and/or voluntary approach would need to address the following items:** [To be clarified by EPA/NMFS re relation to LWD and sedimentation concerns]

○ Current Deficiencies/Shortfall:

- *Regulatory* - Oregon’s current rules protect for public safety against shallow, rapidly moving landslides. Oregon does not have additional management measures for forestry in place to protect high-risk landslide areas to ensure water quality standards and designated uses are protected. While some level of landslide activity may not be preventable, and some may even be desirable to provide large woody debris to enhance habitat

Comment [PC13]: Recruitment of LWD is an important process and landslides provide LWD. However, when forest practices generate landslides at too frequent and too massive a rate, adverse effects can occur such as fish blockage, stream blowout, and sedimentation of spawning areas. Forestry practices need to address the adverse effects of landslides.

complexity and value, there needs to be a balanced program that prevents landslide activity that excessively silts streams impairing water quality and blocking or impairing salmon habitat.

- *Voluntary* – The voluntary measure identified by the State gives landowners credit for leaving standing live trees in landslide prone slopes as an eventual source of large wood for fish-bearing streams. The State hasn't shown how it monitors and tracks the implementation and effectiveness of this measure.
- Examples of State Actions Needed:
 - *Regulatory* – **By [date certain]**, adopt similar harvest and road construction restrictions for all high-risk landslide prone areas with the potential to impact water quality and designated uses, not just those where landslides pose risks to life and property.
 - *Voluntary* – **By [date certain]**, complete the following actions. 1) Establish program that includes a scientifically rigorous process for identifying high-risk areas and unstable slopes based on field review by trained staff. Widely available maps of high-risk landslide areas could improve water quality by informing foresters during harvest planning. 2) ~~Integrate processes to identify high-risk landslide prone areas and specific best management practices to protect these areas into the TMDL development process.~~ 3) Adopt BMPs that include employing no-harvest restrictions around high-risk areas and ensuring that roads are designed, constructed, and maintained in such a manner that the risk of triggering slope failures is minimized.

For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

Comment [WRM*G14]: Not really voluntary, and will slow down overall progress significantly.

- **Spray Buffers for Aerial Application of Herbicides on Non-Fish-Bearing Streams: regulatory and/or voluntary approaches that could be established include the following items:** [To be clarified by NMFS re why FIFRA isn't already adequate].
 - Current Deficiencies/Shortfall:
 - *Regulatory* - Oregon does not have a spray buffer to protect non-fish-bearing streams when herbicides are aerially applied.
 - *Voluntary* – There are no voluntary spray buffers nor is there monitoring and tracking on non-fish-bearing streams.

Comment [WS15]: Verify the implication that fish bearing streams are adequately protected.

- Examples of State Actions Needed: The State should establish a process to track, monitor and verify that FIFRA requirements are being followed when herbicides are applied to small non-fish-bearing streams where currently there are no vegetation requirements in the Coast Range to protect against overspray and drift. Riparian buffer protections for non-fish-bearing streams may suffice as a protective herbicide spray buffer if riparian buffer protections extend the length of the non-fish bearing stream where spraying occurs; or

- *Regulatory* – **By [date certain]**, adopt rules for aerial herbicide spray buffers for small, non-fish-bearing streams; OR-
- *Voluntary* – **By [date certain]**, 1) develop guidelines to retain vegetation around small non-fish-bearing streams for buffer protections for aerially applied herbicides on small, non-fish-bearing streams; 2) monitor and track that voluntary guidelines are followed measures; 3) identify ODF and DEQ general authorities for enforcing changes when voluntary measures are not implemented; and 4) revise ODF Notification of Operation form to explicitly include that aerial applicators will adhere to FIFRA labels, especially for herbicides that are prohibited from use in/above waterbodies, for all stream types, including non-fish-bearing streams.

For all voluntary programs, the state must meet all elements needed for voluntary program (see General CZARA Guidelines for Approval above or NOAA and EPA's 2001 memo on Enforceable Policies and Mechanisms for State Coastal Nonpoint Source Programs (<http://coast.noaa.gov/czm/pollutioncontrol/media/epmmemo.pdf>)).

Ex. 5 - Deliberative

Comment [PC17]: As noted above, it does not appear from our reading of the OAR regs that buffer protections are in place for small non-fish-bearing streams in the CZARA coastal area.

Page 2: [1] Comment [PC8]**Psyk, Christine****1/22/2015 1:54:00 PM**

We reviewed the OAR rule cited above and believe our statement is correct. OAR 629-635-0200(6) provides that "Operators shall retain all understory vegetation and non-merchantable conifer trees (conifer trees less than six inches DBH) within 10 feet of the high water level on each side of small perennial Type N streams indicated in Table 5". Table 5 — "Vegetation Retention for Specified Small Type N Streams (OAR 629-640-0200(6))"—lists the vegetation requirements for specific geographical regions in the State. Figure 1 "Geographic Regions" (OAR 629-635-0220) is a map of the State divided into seven defined regions and one undefined region. The region defined as the "Coast Range" includes most of the area covered by CZARA. Table 5 provides that "no vegetation" is required for the Coast Range or the Western Cascades regions.

OAR 629-635-0300 "Alternate Vegetation Retention Prescriptions" identifies alternate vegetation retention prescriptions and when the prescriptions apply. The OAR references two tables which list the type of streams where the alternate prescriptions apply. Neither table includes Type N streams.

Mr. Whitman is correct regarding the 50' riparian management Area for medium Type N streams, but our concern and the identified gap that needs closing is for the small Type N streams.

Page 2: [2] Comment [PC11]**Psyk, Christine****1/22/2015 2:02:00 PM**

Compliance will depend on what sort of guidelines or requirements the State establishes and what level of flexibility it builds into those guidelines for site specific reasons. What we expect here is for the state to provide a description of the elements of the voluntary program they will adopt if they choose to go the voluntary program route.